

**REMARKS**

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-27 are presently active in this case. None of the claims are amended.

Claims 1-27 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ishii (U.S. Patent No. 6,636,194) in view of Yamazaki (U.S. Patent No. 6,522,319).

Initially, Applicant respectfully requests that the reference Sato et al. (U.S. Patent No. 5,712,692) cited in the Information Disclosure Statement (IDS) filed November 21, 2001 be acknowledged as having been considered in the next Office Action.

In response to the rejection of Claims 1-27 under 35 U.S.C. §103(a), Applicant respectfully requests reconsideration of this rejection and traverses the rejection, as discussed next.

Briefly recapitulating, Applicant's invention, as recited in independent Claims 1 and 10, relates to a display device including a data driver and a scan driver in order to perform a first display, and a memory device driver for controlling the write of the graphic data held in the memory devices into the pixels in order to perform a second display. Claim 1 further recites a power source voltage control circuit for stopping a supply of the power source voltage from a power source voltage generating unit during the period of the second display, and Claim 10 further recites a power source voltage generating and stopping circuit for stopping generation of the power source voltage in the power source voltage generating unit during a period of the second display. In other words, the present invention as recited in

Claim 1 stops the supply of the power source voltage to the data driver and the scan driver during a period of a second display in which the graphic data held in the memory devices are written into the pixels. The invention as recited in Claim 10 stops generation of the power source voltage. As explained in Applicant's specification, the claimed invention improves upon conventional display devices by reducing power consumption.<sup>1</sup>

The outstanding Office Action relies on Ishii as teaching a power source voltage control circuit 104 for stopping the power source voltage during the second display.<sup>2</sup> However, the circuit 104 is a liquid crystal pixel driver for driving pixels. The circuit 104 supplies either a first voltage or a second voltage to a pixel electrode 106 of a liquid crystal pixel 105. Additionally, and as acknowledged by the outstanding Office Action,<sup>3</sup> Ishii fails to disclose to stop supply or generation of the power source voltage to the data driver and the scan driver during the second display.

The outstanding Office Action states that Yamazaki teaches the voltage source is suspended during the second display.<sup>4</sup> However, Yamazaki only discloses that a driver circuit includes a charge-pump circuit that is stopped during a particular period. Yamazaki fails to disclose to stop supply or generation of the power source voltage to the data driver and the scan driver during the second display.

In other words, the outstanding Office Action finds it would have been obvious to modify Ishii by importing this feature from Yamazaki of stopping a driver current to arrive at

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<sup>1</sup> See Applicant's specification at page 2, lines 3-7 and page 5, lines 15-16.

<sup>2</sup> See outstanding Office Action at page 2, lines 22-24.

<sup>3</sup> See outstanding Office Action from page 2, line 24 to page 3, line 4.

<sup>4</sup> See outstanding Office Action at page 3, lines 5-8.

Applicant's claimed invention. Applicant respectfully submits, however, that Yamazaki fails to disclose the above feature related to power source voltage control circuit for stopping the supply of the power source voltage during a period of the second display, as next discussed.

The outstanding Office Action relies on Yamazaki's text at column 7, lines 33-43. This passage of Yamazaki recites that the driving-voltage forming circuit includes a charge-pump circuit that switches among a plurality of capacitor connections to generate boosted voltages and dropped voltages. However, Yamazaki teaches that the operation of the charge-pump circuit is stopped *in the period when the individual application voltages for all the scanning electrodes and all the signal electrodes are fixed*.<sup>5</sup> Reading Yamazaki, a person of ordinary skill in the art would understand that the charge-pump circuit stopped in the period when the individual application voltages for all the scanning electrodes and all the signal electrodes are fixed<sup>6</sup> *is not* a power source voltage control circuit for stopping the supply of the power source voltage to the data driver and the scan driver during a period of a second display in which the graphic data held in the memory devices are written into the pixels. It is not possible to write graphic data into the pixels while the scanning electrodes and all the signal electrodes are fixed.

Further, as explained in Yamazaki from column 7, line 60 to column 8, line 1, Yamazaki's period during which the operation of the charge-pump circuit is stopped *is not the same* period as the record display period, during which the graphics data held in the memory device is written into the pixels, as claimed by Applicant. Yamazaki expressly states

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<sup>5</sup> See Yamazaki, for example at column 7, lines 33-37.

<sup>6</sup> See Yamazaki, for example at column 7, lines 23-30.

that the period during which the operation of the charge-pump circuit is stopped is not the same period in which the selection voltages are applied to display lines, at which time the potentials of all the scanning electrodes and all the signal electrodes are fixed.<sup>7</sup> Accordingly, a charge-pump circuit configured to stop during the period when the individual application voltages for all the scanning electrodes and all the signal electrodes are fixed, as taught in Yamazaki, *is not* a power source voltage control circuit for stopping the supply of the power source voltage during a period of the second display, as would be required to meet Applicant's claimed feature.

Therefore, even if the combination of the Ishii and Yamazaki were proper, the combination fails to teach every element of the claimed invention. Specifically, the combination fails to teach the claimed power source voltage control circuit for stopping the supply of the power source voltage during a period of the second display in which the graphic data held in the memory devices are written into the pixels. Accordingly, Applicant respectfully traverses, and requests reconsideration of, this rejection based on these patents.<sup>8</sup>

Consequently, in view of the present Request for Reconsideration, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-27 is earnestly solicited.

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<sup>7</sup> See Yamazaki at column 7, lines 61-65.

<sup>8</sup> See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

Application No. 09/989,027  
Reply to Office Action of November 3, 2004

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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